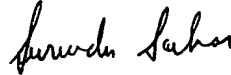The present application is believed to be in condition for a full and thorough examination on the merits. An early and favorable consideration of the present application is hereby respectfully requested.

Respectfully submitted,

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IN THE CLAIMS

4. (Amended) A method according to [one of claims 1 to 3] <u>claim 1</u>, characterized in that the phase adjustment necessary for the instantaneous condition of the system is determined only at individual image spots, and in that the determined phase adjustment is then applied to the entire image.

8. (Amended) A method according to [one of claims 5 to 7] <u>claim 5</u>, wherein the image area and image spots are arrayed on the flat-panel display in rows and columns between a back-porch region and a front-porch region, characterized in that an image spot in the first image column close to the back-porch region is chosen as the sufficiently bright image spot for determination of the rising edge and an image spot in the first image column close to the front-porch region is chosen as the sufficiently bright image spot for determination of the falling edge.

9. (Amended) A method according to [one of claims 5 to 8] <u>claim 5</u>, characterized in that the brightness of a plurality of image spots of the first or last image column is measured, and the image spots with the greatest brightness in the first or last image column are chosen for determination of the rising or falling edge respectively of the video pulse.

10. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that the image spots (n x k) are first measured with n = 1, 2, ... N and k = constant, such as 10, and in that, if no sufficiently bright image spot was found, the image spots (n + m) x k are measured with m = 1, 2, ... N, until a sufficiently bright image spot is found.

11. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that, for determination of the amplitude values of the selected image spots, the phases at these image spots are shifted until the measured amplitude values no longer change significantly, and in that the amplitude values then determined are further processed.

12. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that the phase used for determination of the amplitude values is advanced sufficiently that the measured amplitude values are smaller than a predetermined limit value, for example smaller than 50% of the amplitude value, in that the phase is delayed by half the width of a spot, and in that the amplitude value then measured is further processed.

13. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that, for determination of the rising edge of the selected image spots, the phase at the selected image spot is shifted sufficiently toward the back-porch region that the measured amplitude value is reduced to a predetermined percentage, for example 50%, of the previously determined amplitude value, and in that this value of the phase is stored temporarily as the position of the rising edge.

14. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that, for determination of the falling edge of the selected image spots, the phase at the selected image spot is shifted sufficiently toward the front-porch region that the measured

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amplitude value is reduced to a predetermined percentage, for example 50%, of the previously determined amplitude value, and in that this value of the phase is stored temporarily as the position of the falling edge.

15. (Amended) A method according to [one of claims 5 to 8] claim 5, characterized in that the phase or sampling instant is delayed relative to the midpoint between the rising and falling edges by a predetermined amount, for example 10% of the width of the image spot.

16. (Amended) A method according to [one of the preceding claims] claim 1, characterized in that the pixel or pixels that is or are influenced or distorted by matching is or are masked by distortion-free image fragments from a video memory.

18. (Amended) A method according to [one of claims 4 to 17] claim 4, characterized in that the sampling instant can be changed by the user compared with the value determined during matching, in which case an offset adjusted in this way is taken into consideration during automatic matching.

21. (Amended) A device according to claim 19 [or 20], characterized by an adjusting device for shifting the phase, comprising a circuit containing two PLL circuits [(PLL1, PLL2)], whose outputs [(A1, A2)] can be adjusted independently of one another as regards their phase.

22. (Amended) A device according to claim 19 [or 20], characterized by an adjusting device for shifting the phase, comprising a PLL circuit [(PLL)] with two clock outputs [(A1, A2)], whose output clock signals can be adjusted independently of one another as regards their phase.

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23. (Amended) A device according to claim 22, characterized in that the two outputs [(A1, A2)] of the PLL circuit [(PLL)] optionally deliver a sampling clock signal for matching and a sampling signal for the entire image.

25. (Amended) A device according to [one of claims 19 to 25] claim 19, characterized by a device by which the phase adjustment necessary for the instantaneous condition of the system is determined only at individual image spots, and by which the determined phase adjustment is then applied to the entire image.

26. (Amended) A device according to [one of claims 19 to 25] claim 19, characterized by a device which determines the rising edge of a video pulse of a sufficiently bright image spot, by a device that determines the falling edge of the video pulse at a sufficiently bright image spot, and by an adjusting device with which the phase is adjusted such that the sampling instant is located at approximately the midpoint between the rising and the falling edges of a video pulse.

27. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device which determines the rising edge of a video pulse of a sufficiently bright image spot, and by an adjusting device with which the phase is adjusted such that the sampling instant is shifted by approximately approximately half the width of an image spot toward the center of the pixel.

28. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device which determines the falling edge of a video pulse at a sufficiently bright image spot, and by an adjusting device with which the phase is adjusted such that the

sampling instant is shifted by approximately approximately half the width of an image spot toward the center of the pixel.

29. (Amended) A device according to [one of claims 26 to 28] claim 26, characterized by a PLL circuit which is programmed such that it oscillates at an integral multiple of the needed sampling frequency, and by a downstream frequency divider, which divides the sampling frequency of the PLL circuit by a factor n, wherein n sampling signals phase-shifted by 1/n periods relative to one another can be generated.

31. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device for shifting the phase for determination of the sampling value of the image spot until the measured amplitude values no longer differ significantly, whereupon the sampling value determined then is further processed.

32. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device which advances the phase used for determination of the sampling value sufficiently that the measured amplitude values are smaller than a predetermined limit value, such as smaller than 50% of the sampling value, and by a device which then retards the phase by half the width of an image spot, whereupon the sampling value measured then is further processed.

33. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device which shifts the phase for determination of the rising edge sufficiently far toward the back-porch region that the measured amplitude value decreases to a predetermined percentage, such as 50% of the previously determined amplitude value, whereupon this value of the phase is stored temporarily as the position of the rising edge.

34. (Amended) A device according to [one of claims 19 to 26] claim 19, characterized by a device which shifts the phase for determination of the falling edge sufficiently far toward the front-porch region that the measured amplitude value decreases to a predetermined percentage, such as 50% of the previously determined amplitude value, whereupon this value of the phase is stored temporarily as the position of the falling edge.

35. (Amended) A device according to [one of claims 19 to 34] claim 19, characterized by an adjusting device, by which the sampling instant can be changed by the user compared with the value determined during matching, in which case an offset adjusted in this way is taken into consideration during automatic matching.

IN THE ABSTRACT

Please amend the Abstract on page 30 as follows:

[Abstract]

[Method and device for correcting the phase in flat-panel displays]

ABSTRACT OF THE DISCLOSURE

[The invention relates to a] A method and a device for correcting the phase between the pixel clock of a graphics card and the sampling clock of a flat-panel display with an analog interface in a system [comprising] including a flat-panel display, graphics card, and computer. Automatic adjustment of the phase is performed repeatedly. In the process, the rising edge of a video pulse of a sufficiently bright image spot in the first image column close to the back-porch region is determined. The falling edge of a video pulse is determined at a sufficiently bright image spot in the last image column close to the front-porch region, and

the phase is adjusted such that the sampling instant is situated approximately at the midpoint

between the rising and falling edges of a video pulse.

[Fig. 1]

IN THE TITLE

Please cancel the original title and insert therefor:

--METHOD AND DEVICE FOR ADJUSTING THE PHASE FOR FLAT SCREENS--

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